

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/970,682

REMARKS

Claims 1-15 are all the claims pending in the application. Claims 1-15 presently stand rejected.

Applicants respectfully request that the Examiner forward a copy of the initialed Form PTO-1449 for the Information Disclosure Statement filed October 5, 2001 with the next response from the Office.

Claims 1-15 are rejected under 35 U.S.C. § 112, second paragraph. Applicants amend the claims to remove any ambiguities.

Claims 1-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Zaopo et al. (4,769,287) in view of Keane et al. (4,503,124).

Analysis

The present invention is directed to a composition which includes:

- (a) a copolymer obtained from a thermoplastic or thermosetting resin and at least one alkoxysilane; and
- (b) a mineral filler selected from compounds of B, Al, Ti, Zn, Ar, Cr, Fe, and silicates, and mixtures thereof.

This composition, which is a **hybrid and composite** varnish, provides the wire it coats with improved ability to withstand partial discharges and voltage peaks at high temperature.

The filler spreads out an electrical charge uniformly.

All of the claims are rejected over the combination of Zaopo in view of Keane.

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Zaopo provides an insulation material for specific types of cables used as building wires in civil and military installations. Such types of wires need to withstand very high temperatures and thus require a high heat resistance.

Hence, this document does not deal at all with winding wires.

The insulation material disclosed comprises a non-cross-linked base polymer and a polymerizable silanic monomer. The final product thus contains a mixture of a non-cross-linked polymer with a cross-linked polymer. It is not at all a copolymer of both.

Finally, there is no filler whatsoever incorporated in this material.

Keane lays bare a winding wire designated to resist corona discharge. It is described in the present application as filed at page 2, lines 22 to 28.

The varnish disclosed in this document comprises a polymer resin filled with alumina. Here, there is no copolymerization of the base polymer resin with an aldoxysilane.

The Examiner asserts the combination of Zaopo et al. with Keane et al. render claim 1 obvious. Applicants respectfully disagree for the following reasons.

First, Applicants respectfully submit that Zaopo et al. is not the closest prior art with respect to claim 1. Indeed, Zaopo et al., as explained above, pertains to an entirely different technical field, i.e. to the field of building wires. Hence, one of ordinary skill in the art looking for a new and improved winding wire would not consider Zaopo et al. as a primary reference.

Withstanding partial discharges and voltage peaks is a different electrical property from withstanding Corona discharge. Before the present invention was made, the only varnishes able

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to provide such an electrical property were the hybrid varnishes made from ceramics, as described in the present application at page 1, last paragraph.

Hence, for one of ordinary skill in the art, even starting from Keane et al. when looking for a varnish having the ability to withstand partial discharges and voltage peaks would have been nonobvious.

Starting from Keane et al., one of ordinary skill in the art would find that such a varnish does not appropriately withstand partial discharges and voltage peaks.

From there, one would not have been motivated to turn to Zaopo et al. for a solution. Indeed, Zaopo et al, as mentioned above, belongs to an entirely different field, and the problem of partial discharges and voltage peaks is not even mentioned in Zaopo et al. Hence, one of ordinary skill in the art would not look for a solution to the technical problem of withstanding partial discharges and voltage peaks in Zaopo et al.

Even assuming one were to combine the references, Zaopo et al. does not describe a copolymer but rather a mixture of a non-cross-linked polymer with a cross-linked polymer, and thus, one would not have arrived at the claimed invention where there is a copolymer of a resin with an alkoxysilane.

Finally, supposing that, arguendo, one of ordinary skill in the art would have thought to modify Zaopo et al. based on Keane, since neither reference describes a copolymer of the resin with the alkoxysilane, one would merely have added alumina to the mixture described in Zaopo et al.

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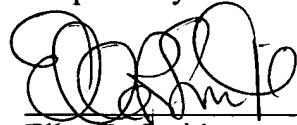
In view of the foregoing, claim 1 is not rendered obvious by the combination of Zaopo and Keane. Thus, claim 1 is patentable. Moreover, the remaining claims are patentable for at least the same reasons as claim 1, by virtue of their dependency therefrom.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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